

## ***Author Index to Volume 111***

Numbers in parentheses in italic type after the volume number are the issue numbers

No. 1 January-February  
No. 2 March-April  
No. 3 May-June  
No. 4 July-August  
No. 5 September-October  
No. 6 November-December

### **A**

#### **Afriди, M. Y.**

Simple Thermal-Efficiency Model for CMOS-Microhotplate Design. Geist, J., Afriди, M.Y., Varma, A., Hefner, A. R., **111**(3), 243 (2006).

#### **Allen, R. A.**

RM 8111: Development of a Prototype Linewidth Standard. Cresswell, M. W., Guthrie, W. F., Dixson, R. G., Allen, R. A., Murabito, C. E., Martinez De Pinillos, J. V., **111**(3), 187 (2006).

#### **Almeida, J. L.**

Requirements for the Development of *Bacillus Anthracis* Spore Reference Materials Used to Test Detection Systems. Almeida, J. L., Wang, L., Morrow, J. B., Cole, K. D., **111**(3), 205 (2006).

### **B**

#### **Bakulin, A. S.**

Variable Magnification With Kirkpatrick-Baez Optics for Synchrotron X-Ray Microscopy. Jach, T., Bakulin, A. S., Durbin, S. M., Pedulla, J., Macrander, A., **111**(3), 219 (2006).

#### **Bennett, L. H.**

Phase Transformations in the High- $T_C$  Superconducting Compounds,  $\text{Ba}_2\text{Rcu}_3\text{O}_{7-\delta}$  ( $\text{R} = \text{Nd}, \text{Sm}, \text{Gd}, \text{Y}, \text{Ho}, \text{and Er}$ ). Wong-Ng, W., Cook, L. P., Su, H. B., Vaudin, M. D., Chiang, C. K., Welch, D. R., Fuller, E. R., Jr., Yang, Z., Bennett, L. H., **111**(1), 41 (2006).

#### **Bernal, J.**

Integer Representation of Decimal Numbers for Exact Computations. Bernal, J., Witzgall, C., **111**(2), 79 (2006).

#### **Brown, S. W.**

Spectrally Tunable Sources for Advanced Radiometric Applications. Brown, S. W., Rice, J. P., Neira, J. E., Johnson, B. C., Jackson, J. D., **111**(5), 401 (2006).

#### **Burns, D. T.**

Comparison of the NIST and BIPM Standards for Air Kerma in Medium-Energy X-Rays. Burns, D. T., O'Brien, C., **111**(5), 385, (2006).

**C**

**Carter, A. C.**

Intercomparison of the LBIR Absolute Cryogenic Radiometers to the NIST Optical Power Measurement Standard. Fedchak, J. A., Carter, A. C., Datla, R., **111**(4), 325 (2006).

**Chiang, C. K.**

Phase Transformations in the High- $T_C$  Superconducting Compounds,  $\text{Ba}_2\text{Rcu}_3\text{O}_{7-\delta}$  ( $\text{R} = \text{Nd}, \text{Sm}, \text{Gd}, \text{Y}, \text{Ho}, \text{and Er}$ ). Wong-Ng, W., Cook, L. P., Su, H. B., Vaudin, M. D., Chiang, C. K., Welch, D. R., Fuller, E. R., Jr., Yang, Z., Bennett, L. H., **111**(1), 41 (2006).

**Cole, K. D.**

Methods to Characterize Ricin for the Development of Reference Materials. Kim, S. K., Hancock, D. K., Wang, L., Cole, K. D., Reddy, P. T., **111**(4), 313 (2006).

Requirements for the Development of Bacillus Anthracis Spore Reference Materials Used to Test Detection Systems. Almeida, J. L., Wang, L., Morrow, J. B., Cole, K. D., **111**(3), 205 (2006).

**Cook, L. P.**

Phase Transformations in the High- $T_C$  Superconducting Compounds,  $\text{Ba}_2\text{Rcu}_3\text{O}_{7-\delta}$  ( $\text{R} = \text{Nd}, \text{Sm}, \text{Gd}, \text{Y}, \text{Ho}, \text{and Er}$ ). Wong-Ng, W., Cook, L. P., Su, H. B., Vaudin, M. D., Chiang, C. K., Welch, D. R., Fuller, E. R., Jr., Yang, Z., Bennett, L. H., **111**(1), 41 (2006).

**Cresswell, M. W.**

RM 8111: Development of a Prototype Linewidth Standard. Cresswell, M. W., Guthrie, W. F., Dixson, R. G., Allen, R. A., Murabito, C. E., Martinez De Pinillos, J. V., **111**(3), 187 (2006).

**D**

**Datla, R.**

Intercomparison of the LBIR Absolute Cryogenic Radiometers to the NIST Optical Power Measurement Standard. Fedchak, J. A., Carter, A. C., Datla, R., **111**(4), 325 (2006).

**Dearing, P. M.**

One-Center Location With Block and Euclidean Distance. Dearing, P. M., Thipwiwatpotjana, P., **111**(2), 89 (2006).

**Dixson, R. G.**

RM 8111: Development of a Prototype Linewidth Standard. Cresswell, M. W., Guthrie, W. F., Dixson, R. G., Allen, R. A., Murabito, C. E., Martinez De Pinillos, J. V., **111**(3), 187 (2006).

**Donnelly, M. K.**

Measurement of 100 nm and 60 nm Particle Standards by Differential Mobility Analysis. Mulholland, G. W., Donnelly, M. K., Hagwood, C. R., Kukuck, S. R., Hackley, V. A., Pui, D. Y. H., **111**(4), 257 (2006).

**Durbin, S. M.**

Variable Magnification With Kirkpatrick-Baez Optics for Synchrotron X-Ray Microscopy. Jach, T., Bakulin, A. S., Durbin, S. M., Pedulla, J., Macrander, A., **111**(3), 219 (2006).

**F**

**Fedchak, J. A.**

Intercomparison of the LBIR Absolute Cryogenic Radiometers to the NIST Optical Power Measurement Standard. Fedchak, J. A., Carter, A. C., Datla, R., **111**(4), 325 (2006).

**Fick, S. E.**

In-situ Attenuation Corrections for Radiation Force Measurements of High Frequency Ultrasound With a Conical Target. Fick, S. E., Ruggles, D., **111**(6), 435 (2006).

**Fuller, E. R., Jr.**

Phase Transformations in the High- $T_C$  Superconducting Compounds,  $Ba_2Rcu_2O_{7-\delta}$  ( $R = Nd, Sm, Gd, Y, Ho$ , and  $Er$ ). Wong-Ng, W., Cook, L. P., Su, H. B., Vaudin, M. D., Chiang, C. K., Welch, D. R., Fuller, E. R., Jr., Yang, Z., Bennett, L. H., **111**(1), 41 (2006).

**G**

**Geist, J.**

Simple Thermal-Efficiency Model for CMOS-Microhotplate Design. Geist, J., Afridi, M.Y., Varma, A., Hefner, A. R., **111**(3), 243 (2006).

**Gilsinn, D. E.**

An Examination of New Paradigms for Spline Approximations. Witzgall, C., Gilsinn, D. E., McClain, M. A., **111**(2), 57 (2006).

**Goldman, A. J.**

Optimal Facility-Location. Goldman, A. J., **111**(2), 97 (2006).

**Griesmann, U.**

Form-Profilng of Optics Using the Geometry Measuring Machine and the M-48 CMM at NIST. Machkour-Deshayes, N., Stoup, J., Lu, Z. Q. J., Soons, J., Griesmann, U., Polvani, R., **111**(5), 373 (2006).

**Guthrie, W. F.**

RM 8111: Development of a Prototype Linewidth Standard. Cresswell, M. W., Guthrie, W. F., Dixson, R.

G., Allen, R. A., Murabito, C. E., Martinez De Pinillos, J. V., **111**(3), 187 (2006).

**H**

**Hackley, V. A.**

Measurement of 100 nm and 60 nm Particle Standards by Differential Mobility Analysis. Mulholland, G. W., Donnelly, M. K., Hagwood, C. R., Kukuck, S. R., Hackley, V. A., Pui, D. Y. H., **111**(4), 257 (2006).

**Hagedorn, J. G.**

Bayesian Tomography for Projections With an Arbitrary Transmission Function With an Application in Electron Microscopy. Levine, Z. H., Kearsley, A. J., Hagedorn, J. G., **111**(6), 411 (2006).

**Hagwood, C. R.**

Measurement of 100 nm and 60 nm Particle Standards by Differential Mobility Analysis. Mulholland, G. W., Donnelly, M. K., Hagwood, C. R., Kukuck, S. R., Hackley, V. A., Pui, D. Y. H., **111**(4), 257 (2006).

**Hancock, D. K.**

Methods to Characterize Ricin for the Development of Reference Materials. Kim, S. K., Hancock, D. K., Wang, L., Cole, K. D., Reddy, P. T., **111**(4), 313 (2006).

**Hefner, A. R.**

Simple Thermal-Efficiency Model for CMOS-Microhotplate Design. Geist, J., Afridi, M.Y., Varma, A., Hefner, A. R., **111**(3), 243 (2006).

**Heimbach, C.**

NIST Calibration of a Neutron Spectrometer ROSPEC. Heimbach, C., **111**(6), 419 (2006).

**Hoffman, K.**

A Column-Generation and Branch-and-Cut Approach to the Bandwidth-Packing Problem. Villa, C., Hoffman, K., **111**(2), 161 (2006).

**I**

**Indika, S. H. S.**

Optimization Models for Scheduling of Jobs. Indika, S. H. S., Shier, D. R., **111**(2), 103 (2006).

**Itano, W. M.**

Erratum: External-Field Shifts of the  $^{199}\text{Hg}^+$  Optical Frequency Standard. Itano, W. M., **111**(3), 255 (2006).

**J**

**Jach, T.**

Variable Magnification With Kirkpatrick-Baez Optics for Synchrotron X-Ray Microscopy. Jach, T., Bakulin, A. S., Durbin, S. M., Pedulla, J., Macrander, A., **111**(3), 219 (2006).

**Jackson, J. D.**

Spectrally Tunable Sources for Advanced Radiometric Applications. Brown, S. W., Rice, J. P., Neira, J. E., Johnson, B. C., Jackson, J. D., **111**(5), 401 (2006).

**Johnson, B. C.**

Spectrally Tunable Sources for Advanced Radiometric Applications. Brown, S. W., Rice, J. P., Neira, J. E., Johnson, B. C., Jackson, J. D., **111**(5), 401 (2006).

**K**

**Kalsi, A.**

Fast Algorithms for Structured Least Squares and Total Least Squares Problems. Kalsi, A., O'Leary, D. P., **111**(2), 113 (2006).

**Kearsley, A. J.**

Projections Onto Order Simplexes and Isotonic Regression. Kearsley, A. J., **111**(2), 121 (2006).

Bayesian Tomography for Projections With an Arbitrary Transmission Function With an Application in Electron Microscopy. Levine, Z. H., Kearsley, A. J., Hagedorn, J. G., **111**(6), 411 (2006).

**Kim, S. K.**

Methods to Characterize Ricin for the Development of Reference Materials. Kim, S. K., Hancock, D. K., Wang, L., Cole, K. D., Reddy, P. T., **111**(4), 313 (2006).

**Koch, H. W.**

Recollections on Sixty Years of NBS Ionizing Radiation Programs for Energetic X Rays and Electrons. Koch, H. W., **111**(6), 443 (2006).

**Kukuck, S. R.**

Measurement of 100 nm and 60 nm Particle Standards by Differential Mobility Analysis. Mulholland, G. W., Donnelly, M. K., Hagwood, C. R., Kukuck, S. R., Hackley, V. A., Pui, D. Y. H., **111**(4), 257 (2006).

**L**

**Lawrence, J.**

Three Rings of Polyhedral Simple Functions. Lawrence, J., **111**(2), 127 (2006).

**Levine, Z. H.**

Bayesian Tomography for Projections With an Arbitrary Transmission Function With an Application in Electron Microscopy. Levine, Z. H., Kearsley, A. J., Hagedorn, J. G., **111**(6), 411 (2006).

Synthetic Incoherence Via Scanned Gaussian Beams. Levine, Z. H., **111**(6), 429 (2006).

**Liggett, W.**

Normalization and Technical Variation in Gene Expression Measurements. Liggett, W., **111**(5), 361 (2006).

**Lu, Z. Q. J.**

Form-Profiling of Optics Using the Geometry Measuring Machine and the M-48 CMM at NIST. Machkour-Deshayes, N., Stoup, J., Lu, Z. Q. J., Soons, J., Griesmann, U., Polvani, R., **111**(5), 373 (2006).

**M**

**Machkour-Deshayes, N.**

Form-Profiling of Optics Using the Geometry Measuring Machine and the M-48 CMM at NIST. Machkour-Deshayes, N., Stoup, J., Lu, Z. Q. J., Soons, J., Griesmann, U., Polvani, R., **111**(5), 373 (2006).

**Macrander, A.**

Variable Magnification With Kirkpatrick-Baez Optics for Synchrotron X-Ray Microscopy. Jach, T., Bakulin, A. S., Durbin, S. M., Pedulla, J., Macrander, A., **111**(3), 219 (2006).

**Martinez De Pinillos, J. V.**

RM 8111: Development of a Prototype Linewidth Standard. Cresswell, M. W., Guthrie, W. F., Dixson, R. G., Allen, R. A., Murabito, C. E., Martinez De Pinillos, J. V., **111**(3), 187 (2006).

**McClain, M. A.**

An Examination of New Paradigms for Spline Approximations. Witzgall, C., Gilsinn, D. E., McClain, M. A., **111**(2), 57 (2006).

**Mielenz, K. D.**

Optical Diffraction in Close Proximity to Plane Apertures. IV. Test of a Pseudo-Vectorial Theory. Mielenz, K. D., Shirley, E. L., **111**(1), 1 (2006).

**Mighell, A. D.**

Ambiguities in Powder Indexing: The Impact of a Quaternary Lattice Metric Singularity on the Characterization of Mawsonite and Chatkalite. Mighell, A. D., **111**(5), 393 (2006).

**Miiller, A. P.**

Development of Argon Isotope Reference Standards for the U.S. Geological Survey. Miiller, A. P., **111**(5), 335 (2006).

**Mills, K. L.**

Simulating Timescale Dynamics of Network Traffic Using Homogeneous Modeling. Yuan, J., Mills, K. L., **111**(3), 227 (2006).

**Morrow, J. B.**

Requirements for the Development of Bacillus Anthracis Spore Reference Materials Used to Test Detection Systems. Almeida, J. L., Wang, L., Morrow, J. B., Cole, K. D., **111**(3), 205 (2006).

**Mulholland, G. W.**

Measurement of 100 nm and 60 nm Particle Standards by Differential Mobility Analysis. Mulholland, G. W., Donnelly, M. K., Hagwood, C. R., Kukuck, S. R., Hackley, V. A., Pui, D. Y. H., **111**(4), 257 (2006).

**Murabito, C. E.**

RM 8111: Development of a Prototype Linewidth Standard. Cresswell, M. W., Guthrie, W. F., Dixson, R. G., Allen, R. A., Murabito, C. E., Martinez De Pinillos, J. V., **111**(3), 187 (2006).

**N**

**Neira, J. E.**

Spectrally Tunable Sources for Advanced Radiometric Applications. Brown, S. W., Rice, J. P., Neira, J. E., Johnson, B. C., Jackson, J. D., **111**(5), 401 (2006).

**O**

**O'Brien, M.**

Comparison of the NIST and BIPM Standards for Air Kerma in Medium-Energy X-Rays. Burns, D. T., O'Brien, C., **111**(5), 385, (2006).

**O'Leary, D. P.**

Fast Algorithms for Structured Least Squares and Total Least Squares Problems. Kalsi, A., O'Leary, D. P., **111**(2), 113 (2006).

**P**

**Parr, A. C.**

A Tale About the First Weights and Measures Intercomparison in the United States in 1832. Parr, A. C., **111**(1), 31 (2006).

**Pedulla, J.**

Variable Magnification With Kirkpatrick-Baez Optics for Synchrotron X-Ray Microscopy. Jach, T., Bakulin, A. S., Durbin, S. M., Pedulla, J., Macrander, A., **111**(3), 219 (2006).

**Polvani, R.**

Form-Profiling of Optics Using the Geometry Measuring Machine and the M-48 CMM at NIST. Machkour-Deshayes, N., Stoup, J., Lu, Z. Q. J., Soons, J., Griesmann, U., Polvani, R., **111**(5), 373 (2006).

**Pui, D. Y. H.**

Measurement of 100 nm and 60 nm Particle Standards by Differential Mobility Analysis. Mulholland, G. W., Donnelly, M. K., Hagwood, C. R., Kukuck, S. R., Hackley, V. A., Pui, D. Y. H., **111**(4), 257 (2006).

**R**

**Randa, J.**

Erratum: Noise-Parameter Uncertainties: A Monte Carlo Simulation. Randa, J., **111**(6), 461 (2006).

**Reddy, P. T.**

Methods to Characterize Ricin for the Development of Reference Materials. Kim, S. K., Hancock, D. K., Wang, L., Cole, K. D., Reddy, P. T., **111**(4), 313 (2006).

**Rice, J. P.**

Spectrally Tunable Sources for Advanced Radiometric Applications. Brown, S. W., Rice, J. P., Neira, J. E., Johnson, B. C., Jackson, J. D., **111**(5), 401 (2006).

**Ruggles, D.**

In-situ Attenuation Corrections for Radiation Force Measurements of High Frequency Ultrasound With a Conical Target. Fick, S. E., Ruggles, D., **111**(6), 435 (2006).

S

**Shier, D. R.**

Optimization Models for Scheduling of Jobs. Indika, S. H. S., Shier, D. R., **111**(2), 103 (2006).

**Shirley, E. L.**

Optical Diffraction in Close Proximity to Plane Apertures. IV. Test of a Pseudo-Vectorial Theory. Mielenz, K. D., Shirley, E. L., **111**(1), 1 (2006).

**Soons, J.**

Form-Profiling of Optics Using the Geometry Measuring Machine and the M-48 CMM at NIST. Machkour-Deshayes, N., Stoup, J., Lu, Z. Q. J., Soons, J., Griesmann, U., Polvani, R., **111**(5), 373 (2006).

**Stoer, J.**

Analysis of Interior-Point Paths. Stoer, J., **111**(2), 135 (2006).

**Stone, W. C.**

Evaluation of Aerodynamic Drag and Torque for External Tanks in Low Earth Orbit. Stone, W. C., Witzgall, C., **111**(2), 143 (2006).

**Stoup, J. R.**

Form-Profiling of Optics Using the Geometry Measuring Machine and the M-48 CMM at NIST. Machkour-Deshayes, N., Stoup, J., Lu, Z. Q. J., Soons, J., Griesmann, U., Polvani, R., **111**(5), 373 (2006).

**Su, H. B.**

Phase Transformations in the High- $T_c$  Superconducting Compounds,  $Ba_2Rcu_3O_{7-\delta}$  ( $R = Nd, Sm, Gd, Y, Ho$ , and  $Er$ ). Wong-Ng, W., Cook, L. P., Su, H. B., Vaudin, M. D., Chiang, C. K., Welch, D. R., Fuller, E. R., Jr., Yang, Z., Bennett, L. H., **111**(1), 41 (2006).

T

**Thipwiwatpotjana, P.**

One-Center Location With Block and Euclidean Distance. Dearing, P. M., Thipwiwatpotjana, P., **111**(2), 89 (2006).

**Tsai, B. K.**

A Summary of Lightpipe Radiation Thermometry Research at NIST. Tsai, B. K., **111**(1), 9 (2006).

V

**Varma, A.**

Simple Thermal-Efficiency Model for CMOS-Microhotplate Design. Geist, J., Afzidi, M.Y., Varma, A., Hefner, A. R., **111**(3), 243 (2006).

**Vaudin, M. D.**

Phase Transformations in the High- $T_c$  Superconducting Compounds,  $Ba_2Rcu_3O_{7-\delta}$  ( $R = Nd, Sm, Gd, Y, Ho$ , and  $Er$ ). Wong-Ng, W., Cook, L. P., Su, H. B., Vaudin, M. D., Chiang, C. K., Welch, D. R., Fuller, E. R., Jr., Yang, Z., Bennett, L. H., **111**(1), 41 (2006).

**Villa, C.**

A Column-Generation and Branch-and-Cut Approach to the Bandwidth-Packing Problem. Villa, C., Hoffman, K., **111**(2), 161 (2006).

W

**Wang, L.**

Methods to Characterize Ricin for the Development of Reference Materials. Kim, S. K., Hancock, D. K., Wang, L., Cole, K. D., Reddy, P. T., **111**(4), 313 (2006).

Requirements for the Development of *Bacillus Anthracis* Spore Reference Materials Used to Test Detection Systems. Almeida, J. L., Wang, L., Morrow, J. B., Cole, K. D., **111**(3), 205 (2006).

**Yuan, J.**

Simulating Timescale Dynamics of Network Traffic Using Homogeneous Modeling. Yuan, J., Mills, K. L., **111**(3), 227 (2006).

**Welch, D. R.**

Phase Transformations in the High- $T_C$  Superconducting Compounds,  $\text{Ba}_2\text{Rcu}_3\text{O}_{7-\delta}$  ( $\text{R} = \text{Nd}, \text{Sm}, \text{Gd}, \text{Y}, \text{Ho}, \text{and Er}$ ). Wong-Ng, W., Cook, L. P., Su, H. B., Vaudin, M. D., Chiang, C. K., Welch, D. R., Fuller, E. R., Jr., Yang, Z., Bennett, L. H., **111**(1), 41 (2006).

**Witzgall, C.**

An Examination of New Paradigms for Spline Approximations. Witzgall, C., Gilsinn, D. E., McClain, M. A., **111**(2), 57 (2006).

Evaluation of Aerodynamic Drag and Torque for External Tanks in Low Earth Orbit. Stone, W. C., Witzgall, C., **111**(2), 143 (2006).

Integer Representation of Decimal Numbers for Exact Computations. Bernal, J., Witzgall, C., **111**(2), 79 (2006).

**Wong-Ng, W.**

Phase Transformations in the High- $T_C$  Superconducting Compounds,  $\text{Ba}_2\text{Rcu}_3\text{O}_{7-\delta}$  ( $\text{R} = \text{Nd}, \text{Sm}, \text{Gd}, \text{Y}, \text{Ho}, \text{and Er}$ ). Wong-Ng, W., Cook, L. P., Su, H. B., Vaudin, M. D., Chiang, C. K., Welch, D. R., Fuller, E. R., Jr., Yang, Z., Bennett, L. H., **111**(1), 41 (2006).

**Y**

**Yang, Z.**

Phase Transformations in the High- $T_C$  Superconducting Compounds,  $\text{Ba}_2\text{Rcu}_3\text{O}_{7-\delta}$  ( $\text{R} = \text{Nd}, \text{Sm}, \text{Gd}, \text{Y}, \text{Ho}, \text{and Er}$ ). Wong-Ng, W., Cook, L. P., Su, H. B., Vaudin, M. D., Chiang, C. K., Welch, D. R., Fuller, E. R., Jr., Yang, Z., Bennett, L. H., **111**(1), 41 (2006).